

From: LUCAS & MERCANTI, LLP

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Our ref: KON-1821

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of: H. KASHIWAGI et al: Art Unit: 1752

Serial No. : 10/657,661

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Examiner: T.

Filed : September 9, 2003

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Chea

Title : SILVER SALT
PHOTOTHERMOGRAPHIC DRY
IMAGING MATERIAL

:

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DECLARATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

S i r:

I, Soc Man Ho Kimura, hereby declare and say as follows:

1. I am one of the named Inventors in the instant Application.

2. I received a Doctorate Degree in Chemistry from the Tokyo University of Agriculture and Technology in March 2000. Since April of 1991, I have been employed by Konica Corporation, the Assignee of the above-identified Application. During my tenure at Konica, I have engaged in the research and development of photographic materials.
3. It has been brought to my attention that the Examiner has applied the reference De Keyzer (U.S. Patent No. 6,277,549) against the claims. I have read De Keyzer and am of the opinion that De Keyzer's material which uses a hole trapping dopant is different than the claimed material which uses an electron trapping dopant. In order to demonstrate the difference between a hole trapping dopant and an electron trapping dopant, tests have been performed and are reported herein. These tests were performed by myself or under my direct supervision and control.
4. Photosensitive Silver Halide Emulsion R1 was prepared in the same manner as Silver Halide Emulsion 1 on page 82 of the present invention, except that after nucleus formation, the entire amount of solution F1 was added and 0.0001 mol/Ag mol 4-hydroxy-6-methyl-1,3,3a,7-tetrazaindene

solution was added. 4-hydroxy-6-methyl-1,3,3a,7-tetrazaindene is an electron trapping dopant.

5. Silver Halide Emulsion R2 was prepared in the same manner as Silver Halide Emulsion 1 on page 82 of the present invention, except that 0.0001 mol/Ag mol 4-hydroxy-6-methyl-1,3,3a,7-tetrazaindene solution was added in Solution D1 at the stage of nucleus formation.
6. Silver Halide Emulsion R3 was prepared in the same manner as Silver Halide Emulsion 1 on page 82 of the present invention, except that after nucleus formation, the entire amount of Solution F1 was added and 0.0001 mol/Ag mol HCOONa was added. HCOONa is a hole trapping dopant (represented by Formula (I) in col. 4 of De Keyzer and employed in Example 2 in Table 1 of col. 20 of De Keyzer).
7. Silver Halide Emulsion R4 was prepared in the same manner as Silver Halide Emulsion 1 on page 82 of the present invention, except that 0.0001 mol/AG mol compound II.1 was added to Solution D1 at the stage of nucleus formation. Compound II.1 is a hole trapping dopant (col. 5, line 15 of De Keyzer).

8. Samples R101 through R104 were used to prepare silver salt photothermographic dry image materials in the same manner as Sample 103 on page 92 of the present invention, except that Silver Halide Emulsions R1 through R4 were employed instead of Silver Halide Emulsion 3. Samples R101 through R104 were evaluated for S_B/S_A , storage stability and image lasting quality in accordance the method described on pages 94-97 of the application. The evaluation results are illustrated in the attached Table 5.
9. As shown in Table 5, Samples R101 and R102 having electron trapping dopants are different than and superior to Samples R103 and R104 having electron releasing dopants with regard to storage stability and image lasting quality.
10. As one of skill in the art, I believe that electron trapping dopants are different than hole trapping dopants. Thus, I expect there to be a difference between the two materials.

It is declared by undersigned that all statements made herein of undersigned's own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that

willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the U.S. Code; and that such willful false statements may jeopardize the validity of this Application or any patent issuing thereon.


Soc Man Ho Kimura

Dated: This 31st day of March, 2006.

Attached: Table 5

Table 5

Sample No.	Silver Aliphatic Carboxylate				Photographic Characteristic	Storage Stability		Image Lasting Quality	Remarks
	Compound (1) *1	Silver Halide Emulsion (*2)	Melting Point (*3) (°C)	Behenic Acid (mol %)		Dmin1	Dmin2		
R101	(1-1)	R1 (No)	58	54	0.12	112	113	Inv.	
R102	(1-1)	R2 (No)	58	54	0.12	109	110	Inv.	
R103	(1-1)	R3 (No)	58	54	0.28	128	147	Comp.	
R104	(1-1)	R4 (No)	58	54	0.29	130	149	Comp.	

* 1 Compound of formula (1)

* 2 Chemical sensitization

* 3 Melting point of aliphatic carboxylic acid